

## WHAT IS CLAIMED IS:

1. (Previously presented) Transgenic mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue.
2. (Original) Transgenic animal according to claim 1, characterized in that it allows an apoptotic phenomenon to be detected in its lymphocytes.
3. (Previously presented) Transgenic animal according to claim 2, characterized in that it allows an apoptotic phenomenon to be detected in its T lymphocytes.
4. (Previously presented) Transgenic animal according to claim 1, characterized in that the mutations in the PS1 gene are at least three mutations selected from the group consisting of M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.
5. (Original) Animal according to claim 4, characterized in that the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.
6. (Currently amended) A method for detecting compounds intended for the treatment of neurodegenerative diseases, comprising exposing said compounds to a transgenic mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue ~~the animal of any one of claims 1 to 5.~~
7. (Currently amended) Cell extracted from a transgenic mammalian non-human animal expressing a multimutated form of presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue ~~the animal of any one of claims 1 to 5.~~
8. (Currently amended) A method for detecting compounds intended for the treatment of neurodegenerative diseases comprising exposing said compounds to said a cell extracted from a transgenic mammalian non-human animal expressing a multimutated form of

presenilin 1 and allowing an apoptotic phenomenon to be detected in a renewable peripheral tissue of any one of claims 1 to 5.

9. (New) The method according to claim 6, characterized in that it an apoptotic phenomenon is detected in lymphocytes.

10. (New) The method according to claim 9, wherein the lymphocytes are T lymphocytes.

11. (New) The method according to claim 6, characterized in that the mutations in the PS1 gene are at least three mutations selected from the group consisting of M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

12. (New) The method according to claim 11, wherein the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

13. (New) The cell according to claim 7 which is a lymphocyte.

14. (New) The cell according to claim 13 wherein the lymphocyte is a T lymphocyte.

15. (New) The cell according to claim 7 having at least three mutations in the PS1 gene selected from the group consisting of M146L, H163R, A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

16. (New) The cell according to claim 15 wherein the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

17. (New) The method according to claim 8, characterized in that it an apoptotic phenomenon is detected in lymphocytes.

18. (New) The method according to claim 17, wherein the lymphocytes are T lymphocytes.

19. (New) The method according to claim 8, characterized in that the mutations in the PS1 gene are at least three mutations selected from the group consisting of M146L, H163R,

A246E, L286V, C410Y, I143T, L235P, P264L, P267S, E317G, G384A, L392V, A426P and P436S.

20. (New) The method according to claim 19, wherein the mutations are M146L, H163R, A246E, L286V, C410Y, combined with each other.

21. (New) The animal according to claim 1 which is a mouse.

22. (New) The method according to claim 6 wherein the neurodegenerative disease includes impairments in mechanisms for protection against free radicals.

23. (New) The method according to claim 22 wherein the neurodegenerative disease is Alzheimer's disease.

24. (New) The method according to claim 8 wherein the neurodegenerative disease includes impairments in mechanisms for protection against free radicals.

25. (New) The method according to claim 24 wherein the neurodegenerative disease is Alzheimer's disease.